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ABSTRACT

Prepared for those interested in program evaluation, this bibliography (largely annotated) on management development and training contains 61 items published between 1959 and early 1969. Citations have been grouped into five categories: descriptions of research studies; literature reviews; discussion of evaluation techniques; surveys of corporate practices; and books (eight references). Such aspects as participant satisfaction, interpersonal competence, sensitivity and human relations training, program planning, behavior and attitude change, reinforcement, and the Management Grid approach are represented. Topics not covered include evaluation of undergraduate management courses or manager training programs conducted under university auspices; assessments of programmed instruction as a management development technique; and military research. An author index and a list of periodicals are included. (1y)

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A SELECTED BIBLIOGRAPHY ON EVALUATION OF MANAGEMENT TRAINING AND DEVELOPMENT PROGRAMS

Compiled and Annotated
by
Vera Kohn

This bibliography was prepared as an aid to those interested in the evaluation of management training and development programs. It includes material published between 1959 and the early part of 1969.

The citations have been grouped into five categories:

- I. Descriptions of Research Studies
- II. Reviews of the Literature
- III. Discussions of Evaluation Techniques
- IV. Surveys of Corporate Practices
- V. Books

The following topics are not covered in this bibliography: evaluation of undergraduate management courses or manager training programs conducted under the auspices of universities; assessments of the effectiveness of programmed instruction as a management development technique; and research sponsored by the military.

An author index and a list of the periodicals which were canvassed appear at the end of the bibliography.

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I. Descriptions of Research Studies

The references in this section have been classified according to the vantage point from which the researcher assessed the impact of the management training and development program. A study may be listed under more than one heading.

Reaction

"How satisfied was the participant with the program?"

1. House, Robert J., "Managerial Reactions to Two Methods of Management Training," Personnel Psychology, Autumn 1965, pp. 311-319.

The study compares managerial reactions to leader-centered and student-centered methods of training in a 4-week (160 hours) management development program and reports managers' opinions concerning optimum teaching methods. The sample consisted of 43 managers. At the conclusion of the program, they filled out structured and open-ended questionnaires designed to tap their reactions to the types of instruction under investigation. The chi-square test was applied to determine whether reactions to the student-centered method were significantly different from reactions to the leader-centered technique.

The results showed no clear superiority of either method for purposes of gaining participants' enthusiasm or holding their attention.

- 1/12/70
2. Kohn, Vera, An Assessment of Participants' Reactions to Management Development Meetings. New York: American Foundation for Management Research, Inc., 1968, 67 pp.

This report describes a study designed to (1) develop, and test the validity of, a research instrument measuring participants' feelings about management development programs they attended; (2) explore the relationship between feelings about selected aspects of the learning situation and satisfaction at outcome; (3) determine whether "correlates" of satisfaction vary with the format of the program. The research was carried out at two of the several types of meetings offered by the American Management Association, the Workshop Seminar (instruction based on discussion) and the Orientation Seminar (instruction based on lectures). The sample consisted of 2,000 participants, 1,000 from each meeting-type. Data were collected by means of questionnaires completed by attendees at the conclusion of each meeting. The principal statistical tool was the multiple regression analysis.

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The results showed that the most important contributors to satisfaction at outcome were: (1) Subject matter that has practical value (both meeting-types); (2) balance of background characteristics (e.g., experience, organizational level, company size, type of business) to assure meaningful communication among the learners (Workshop Seminar only); (3) opportunity for learner participation (Orientation Seminar only). Thus, "correlates" of satisfaction were found to vary with program format.

- 11/12/70 3. Kohn, Vera, and Treadway C. Parker, Management Development and Program Evaluation: Partners in Promoting Managerial Effectiveness. New York: American Foundation for Management Research, Inc., 1969, 124 pp.

This report describes a study designed to evaluate the impact of the American Management Association's 4-week Management Course on participants from a large company. The sample was composed of 37 managers, 27 of whom furnished data while they were enrolled in the Course; the other 10 were Course graduates who had taken the program a number of years before the study was initiated. Measuring devices included (1) questionnaires and "Time Distribution Profiles," administered on a pre- and post-training basis; (2) notebooks in which respondents recorded their impressions while attending the program; (3) group interviews at the conclusion of each week of the Course; (4) individual interviews with each Course graduate.

The authors found statistically significant changes in attitude toward various aspects of the managerial role. Participants' reactions to specific features of the learning situation (program content, presentation, methods of instruction, etc.) are presented in detail, and recommendations calculated to improve program design are included. The application of both findings and research approach to other management development programs is discussed.

4. Moffie, Dannie J., Richard Calhoun, and James K. O'Brien, "Evaluation of a Management Development Program," Personnel Psychology, Winter 1964, pp. 431-440.

The purpose of the study was to evaluate a training course in problem-solving and decision-making given to three levels of management at a large southeastern paper mill. Approximately 50 management personnel attended the 20-hour course. The research design included (1) course-end questionnaire to get the reactions of participants; (2) a controlled experiment, involving two tests, to evaluate the effects of training on learning; (3) analysis of observational data

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collected by two observers during "practical work periods" of the training program.

The results showed that trainees considered the course worthwhile and applicable to their work. The program did not result in significant improvement in scores on test devices used nor did the observational data reveal any substantial changes.

5. Morton, Robert B., and Bernard M. Bass, "The Organizational Training Laboratory," Training Directors Journal, October 1964, pp. 2-15.

X This article describes an organizational training laboratory for managers from different levels in the same department of an aerospace corporation. Three evaluative approaches were used. The 107 trainees were asked (1) to indicate satisfaction with the program on a series of scales (post-training); (2) to complete questions relating to concern for boss, peers, subordinates, rules of the organization, etc., in significant management areas both in terms of how much they were actually concerned and how much they felt they ought to be concerned (pre- and post-training); (3) to report any critical job incidents which had occurred since training and which they considered a consequence of training (three months after completion of the program).

The data revealed that (1) on average, level of satisfaction with the program was near the high end of the 9-point scale on most of the questionnaire items; (2) after training, there was a marked increase in concern for problems of intraorganizational decisions, conflict resolution, coordination, etc.; nevertheless, respondents felt they were less concerned than they ought to be; (3) most of the incidents reported by 97 of the original trainees dealt with personal improvement, improved work relationships, and improved organizational climate.

6. O'Donovan, Thomas R., "The Climate Approach to Management Development," Management of Personnel Quarterly, Summer 1964, pp. 28-31.

The objective of the study was to determine if trainee evaluations of management development programs differentiated successful from unsuccessful programs. The author conducted interviews with ex-participants of management development programs discontinued by the firms administering them because they were judged as inadequate for the purpose of developing managers. Most of the respondents were no longer with the company whose training program they had taken. The same

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questions were then asked of participants of allegedly successful management development programs.

The findings were that the problems seen by the second sample were not very different from the problems identified by the first group. The author argues that companies must provide a "corporate climate" conducive to self-development, and that this will facilitate management development more than formal training programs.

7. Wilson, John E., Donald P. Mullen, and Robert Morton, "Sensitivity Training for Individual Growth - Team Training for Organization Development?" Training and Development Journal, January 1968, pp. 47-53.

This study compares the reactions of participants in a sensitivity training program with the reactions of participants in an organization training laboratory program. Managers were asked to assess the value of the training experience to themselves (1) as individuals, and (2) as managers in their organizations by giving scaled responses to specific questions. In addition, they reported actions they were taking, after training, that they had not taken before as well as actions they were no longer taking that they had taken before.

On the basis of the responses, the authors concluded that the two types of training were equally valuable for the individual in his interpersonal relationships, both on and off the job, but that the organizational team training approach was more effective for the trainee in his role as manager in an organization.

Learning

"What attitudes, techniques, or skills were understood and absorbed by the participant?"

8. Abbatiello, Aurelius A., "An Objective Evaluation of Attitude Change in Training," Training and Development Journal, November 1967, pp. 23-34.

The purpose of the study was to determine whether changes in attitudes occurred as a result of participation in a 17-day training program on supervisory practices. Trainees were 41 supervisors in three program groups. The research instrument was a word-association test requiring subjects to rate a given concept on a graphic scale. Scales covered three major factor loadings - Evaluation (e.g., good-bad), Activity (e.g., active-passive), and Potency (e.g., weak-strong).

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Twelve concepts were selected for study. The tests were administered before and after the program.

The researcher concluded that change in attitude took place; that the direction of change was from polarity toward the neutral point on the scale; and that of the three factor loadings, Evaluation was the most sensitive indicator of change.

9. Bass, Bernard M., "Reactions to Twelve Angry Men as a Measure of Sensitivity Training," Journal of Applied Psychology, April 1962, pp. 120-124.

The purpose of the study was to assess the impact of a management training laboratory on participants' perceptions of interpersonal relationships. The sample consisted of 34 executives who were shown the film, Twelve Angry Men, before and after two weeks of T-group training. After each showing of the film, they were asked to finish a series of incomplete sentences describing the behavior of the characters portrayed in the film.

The data indicated that, after training, participants had become significantly ($p < .01$) more sensitive to the interpersonal relationships among the characters.

To eliminate the possibility that merely seeing the film twice had improved performance on the test, two other groups of trainees were shown the film only once, post-training. Similar results were obtained. The author concluded that the increased sensitivity to interpersonal relations had been due to the training experience and not due to seeing the film twice.

10. ✓ Baum, Bernard H., Peter F. Sorensen, Jr., and William S. Place, "Organizational Effects of Supervisory Human Relations Training: An Evaluative Technique," Personnel Journal, March 1966, pp. 148-152.

This article deals with an exploratory study designed to determine the feasibility of using distribution of influence as a measure of change as a result of supervisory training. Respondents were asked to indicate their perception of the amount of influence (1) exercised by each of the hierarchical levels in their departments; (2) they feel they themselves have; (3) they think they should have. Questionnaires were distributed to 14 trainees, their supervisors and subordinates before and three months after training.

Partial findings are reported for only one of the fourteen

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departments. These are: total influence of the department was seen as increasing as a result of training. Subordinates were perceived as gaining influence. The participant viewed his own influence as constant although his subordinates perceived it as decreasing. Before the program, the participant desired more influence but afterwards he felt that he had enough influence.

11. Blake, Robert R., and Jane S. Mouton, "Some Effects of Managerial Grid Seminar Training on Union and Management Attitudes Toward Supervision," Journal of Applied Behavioral Science, October/November/December 1966, pp. 387-400.

Thirty-three managers and 23 union members from the same plant participated in two 1-week Managerial Grid Seminars. A forced-choice questionnaire, administered before and after training, assessed beliefs about supervisory practices.

The results showed (1) significant differences in beliefs between management and union personnel as to what constitutes sound supervision; (2) both union and management attitudes changed as a result of the Seminar; the change was toward increased endorsement of a style of supervision emphasizing production; (3) management's attitude changed more than that of the union members.

12. Carron, T. J., "Human Relations Training and Attitude Change: A Vector Analysis," Personnel Psychology, Winter 1964, pp. 403-424.

The author conducted an experimental field study to determine the effect of T-group training on the opinions of Research and Development managers toward two kinds of leader behavior. Participants completed a questionnaire before and after training. Responses were compared with those of an untrained control group.

Carron found that a significantly larger number of trained than untrained changed their opinions concerning ideal leader behavior; after training, they placed higher value on consideration and less value on structure.

13. Harrison, Roger, "Cognitive Change and Participation in a Sensitivity Training Laboratory," Journal of Consulting Psychology, December 1966, pp. 517-520.

This study was designed to discover whether participants in a sensitivity training laboratory would become more oriented to interpersonal and intrapersonal processes after training and

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whether the change would be related to rating of participants' behavior during training. The sample consisted of 115 trainees. They described co-workers before and after training, using a modified form of Kelly's Role Repertory Test. Concepts were classified as inferential-expressive and concrete-instrumental. Each participant was also rated on his behavior by the others in his laboratory.

Significant changes were found toward use of a greater proportion of concepts dealing with feelings, attitudes, and emotions (inferential-expressive) in describing others. Changes were slight three weeks after training but increased to significance after three months. Significant positive correlations were found between change in concept usage and rating of active involvement in the training process. The author feels that the evidence justifies the conclusion that interpersonal perceptions are amenable to change through sensitivity training and that the change is associated with the extent to which the trainee was involved in the learning situation.

14. House, Robert J., and Henry Tosi, "An Experimental Evaluation of a Management Training Program," Academy of Management Journal, December 1963, pp. 303-315.

This study was designed to test the importance of "climate" to the effectiveness of a management development program and to determine the relationship between certain pre-training characteristics and change resulting from the training effort. A course consisting of lectures, readings, and discussion was administered to five levels of management at the Engineering Division of a company. Top level management was trained before subordinate groups. Scaled questionnaires were completed by the trainees, their subordinates, and their superiors immediately prior to and up to 18 months after training. The questionnaires were administered at the same time to an untrained control group consisting of members of another department. Data for 24 trained and 33 untrained personnel were analyzed.

The findings showed that the training did not result in greater gross changes in the trained group than in the untrained group, suggesting that while compatible climate is a necessary condition, it is not a "sufficient" condition for the success of a management development effort. However, significant differences were noted between the trained and untrained groups with respect to certain pre-training characteristics. Data indicated that the persons who are most likely to change their perceptions and behavior are those who are satisfied with their positions, feel relatively secure in their jobs, and

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perceive themselves as having a relatively high amount of authority. The authors conclude that compatible climate plus participant characteristics constitute a "sufficient" condition for change.

15. Kohn, Vera, and Treadway C. Parker, Management Development and Program Evaluation: Partners in Promoting Managerial Effectiveness. New York: American Foundation for Management Research, Inc., 1969, 124 pp.

For abstract, see item 3.

16. Lawshe, C. H., Robert A. Boldt, and R. L. Brune, "Studies in Management Training Evaluation: II. The Effects of Exposures to Role Playing," Journal of Applied Psychology, October 1959, pp. 287-292.

The article summarizes five studies designed to compare the effects of a single versus repeated role playing experiences upon foremen. Three groups of trainees received one session while two groups received four sessions. Trainees answered open-ended questions on a before-and-after basis. Responses were rated on an Employee-Oriented scale and a Sensitivity scale.

The results disclosed no significant difference in scores between the groups that had had a single session and the groups that had repeated exposure to role playing. The authors found also that changes on scales occurred only if role playing was emotionally meaningful to the participant.

17. Mahoney, Thomas A., Thomas H. Jerdee, and Abraham Korman, "An Experimental Evaluation of Management Development," Personnel Psychology, Spring 1960, pp. 81-98.

This study was designed to measure changes produced by a management development program which relied heavily on the case study technique. There were four experimental groups of 12-15 supervisors each and one control group. Criterion measures, administered on a pre- and post-training basis, included a quiz testing knowledge of concepts and principles taught; written analyses of case material; and attitude scales to measure appreciation and sense of personal responsibility for self-development.

The case analyses and the attitude scales yielded statistically significant differences in the scores of the experimental and control groups but the quiz did not. The authors concluded that, on the whole, the training technique did not accomplish the desired objectives.

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18. Moffie, Dannie J., Richard Calhoon, and James K. O'Brien, "Evaluation of a Management Development Program," Personnel Psychology, Winter 1964, pp. 431-440.

For abstract, see item 4.

19. Morton, Robert B., and Bernard M. Bass, "The Organizational Training Laboratory," Training Directors Journal, October 1964, pp. 2-15.

For abstract, see item 5.

20. Oshry, Barry I., and Roger Harrison, "Transfer from Here-and-Now to There-and-Then: Changes in Organizational Problem Diagnosis Stemming from T-Group Training," Journal of Applied Behavioral Science, April/May/June 1966, pp. 185-198.

Report of a study to determine whether participants in a T-group can transfer their training experience to their work world. Data were collected from 46 middle managers before and after a two-week residential human relations laboratory program. The evaluation instrument was a Problem Analysis Questionnaire which measured various aspects of participants' diagnostic approaches to interpersonal work problems. The problems were actual situations faced by the subjects on their jobs, and the questionnaire measured their perception of causes, resources available for coping, and their own ability to control or change the problem situation.

The authors found that diagnostic orientations learned about self in relation to the T-group appear to generalize to learning about self in relation to work. After training, the participant (1) had an increased sense of personal control over the work situation; (2) was more aware of his own and others' personal and interpersonal needs; (3) saw a clearer connection between how well interpersonal needs are met and how well the work gets done. However, he did not see a clear connection between his new perceptions and ways of translating them into action on his return to the job.

Behavior

"Did the training lead to more effective performance on the job?"

21. Argyris, Chris, "Explorations in Interpersonal Competence - I," Journal of Applied Behavioral Science, January/February/March 1965, pp. 58-83.

A set of categories to measure interpersonal competence of participants of group efforts was developed, tested, and then used to measure the effects of T-group attendance. The sample consisted of 51 members of four T-groups. Participants were assigned competence

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scores and ranked according to their scores. Observers were then asked, at the end of the program, to rank each individual, and these rankings were compared with the competence scores. Agreement between scores and rankings was significant at the .05 level.

Twenty-one participants evaluated the T-group in terms of their satisfaction with the experience. For 17 of the 21, there was high correlation between the quantitative scores, on the one hand, and participants' perceived degree of learning and their satisfaction with the laboratory experience, on the other.

22. Boyd, J. B., and J. D. Elliss, Findings of Research into Senior Management Seminars. Hydro-Electric Power Commission of Ontario, Toronto, 1962.

This study was designed to measure behavior change as a result of T-group attendance. It compared the effects of laboratory training with the effects of a program built around case discussions and lectures. The sample consisted of managers of a Canadian utility. Estimates of change were obtained through interviews with the supervisor, two peers, and two subordinates of each participant six weeks and six months after the completion of training. A non-trained control group was used.

The results showed that the observers of the laboratory participants reported the greatest amount of change, and the observers of the nontrained managers reported the smallest amount of change.

23. Buchanan, Paul C., and Philip H. Brunstetter, "A Research Approach to Management Improvement: II. Methodology and Results of Evaluation," Journal of the American Society of Training Directors, February 1959, pp. 18-27.

This is an account of a study designed to evaluate the effectiveness of an intraorganizational laboratory program directed at organization development. Managers in one department (N=224) were the experimental group and managers in another department (N=133) served as the control group. A post-training questionnaire was administered three to seven months after completion of the program to subordinates of the participants. They were asked to indicate changes which had occurred in the operation of their organizational units during the previous year.

The findings were that the experimental group reported a greater number of changes in the direction of improvement than the control group.

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24. Bunker, Douglas R., "Individual Applications of Laboratory Training," Journal of Applied Behavioral Science, April/May/June 1965, pp. 131-148.

The author describes a study of the effects of a T-group experience on the job behavior of participants. The sample consisted of 346 people at six different training laboratories conducted at Bethel, Maine, in 1960 and 1961. Methodology included: a matched-pair control group obtained by participant nomination; open-ended behavior change descriptions obtained from the trainee and two or more co-workers; an objective coding system, which increased scoring reliability and permitted an assessment of the content of the components in each subject's total change score.

The results showed that trainees were seen by co-workers as increasing significantly more than controls in cognitive openness, behavioral skill, and understanding of social processes. On-the-job effects of training were found to correlate significantly with learning measures taken at the time of training.

25. Bunker, Douglas R., and Eric S. Knowles, "Comparison of Behavioral Changes Resulting from Human Relations Training Laboratories of Different Lengths," Journal of Applied Behavioral Science, October/November/December 1967, pp. 505-524.

The objective of this study was to assess the effect of duration of training on amount of behavioral change in a work setting. Study samples participated in human relations training laboratories of three weeks' and two weeks' duration. A matched control group was used. The research instrument was a questionnaire administered eight to ten months after training to elicit descriptions of trainees' post-laboratory behavior change, as perceived by the trainee himself and seven of his co-workers (superiors, subordinates, and peers). Two interrelated measures of change were derived: a "total change score," composed of the total number of different changes mentioned, and a "verified change score," composed of those behavioral changes which were mentioned by two or more persons. A set of 17 inductively-derived content categories were also used to make a qualitative analysis of the changes.

The results showed that both laboratory-trained samples differed from the control sample on both measures; they also differed significantly from each other in amount and kind of change. The three-week sample made more changes, as indicated by the two scores; changes were in the direction of more pro-active and interactive behavior, as indicated by the content analysis. Occupational groups

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seemed to be differentially responsive to different-length laboratories. The authors conclude, however, that differences in the training designs of the three-week and two-week laboratories confound the duration variable.

26. ~~X~~ Friedlander, Frank, "The Impact of Organizational Training Laboratories upon the Effectiveness and Interaction of Ongoing Work Groups," Personnel Psychology, Autumn 1967, pp. 289-308.

The purpose of the research project was to study the impact of organizational training laboratory sessions on members of four work groups (N=31). Eight similar groups (N=60) which did not participate served as a "comparison" group. Criteria were six-factored dimensions, each composed of items which group members had perceived as problems in the course of a series of interviews. A questionnaire (Group Behavior Inventory) was administered before and six months after training.

Significant changes were found in the trained groups on three dimensions: group effectiveness, mutual influence, and personal involvement; no significant changes occurred in leader approachability, intragroup trust, and evaluation of group meetings.

27. Harmon, Francis L., and Albert S. Glickman, "Managerial Training: Reinforcement Through Evaluation," Public Personnel Review, October 1965, pp. 194-198.

Two sets of open-ended questionnaires, one for trainees and the other for their supervisors, were administered before, immediately after, and 8-10 months following completion of a training course in problem-analysis and decision-making. Participants were 54 employees in middle and upper management positions in the U. S. Department of Agriculture.

The responses showed (1) that methods of administering the program could be improved, and (2) that follow-up encourages participants to apply training to their work. The authors feel that this approach to evaluation can be used to trace changes in the effectiveness of the training program. By pinpointing weaknesses, the procedure can lead to better programs. The evaluation process can also be used to promote positive reinforcement of what has been learned.

28. Malouf, LeRoy G., "Managerial Grid Evaluated," Training and Development Journal, March 1966, pp. 6-15.

This is a report of a study designed to assess changes resulting from participation in a 1-week Managerial Grid management

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development program. Eleven trainees were given a set of questions which they answered before participation, immediately after, and five months after completion of the sessions. Questionnaires were also sent to trainees' subordinates and bosses.

The results disclosed significant improvement in terms of human relationships, decision-making ability, etc., both on the post-test and after five months. The comments of subordinates corroborated the findings but the changes were less apparent to the trainees' superiors.

29. Miles, M. B., "Changes During and Following Laboratory Training: A Clinical-Experimental Study," Journal of Applied Behavioral Science, July/August/September 1965, pp. 215-242.

This study sought to evaluate a human relations training laboratory in terms of behavior change in the organizational setting. The experimental group was composed of 34 elementary school principals; two other groups of principals served as controls. A large variety of measures were obtained before, during, and after training from the trainees, their work associates, and the trainers. Instruments included structured and open-ended change-description questionnaires, rating of training behavior, and a series of personality measures.

Results obtained with the perceived-change measure were statistically significant. The observers reported behavioral changes for a higher percentage of experimentals than for either of the control groups. Self-reported changes were also highest in the experimental group. Participants tended to report more changes than the observers. A content analysis of the changes reported revealed them to be mostly in the areas of increased sensitivity to others, greater communication and leadership skills, and more relaxed attitude on the job.

30. Merton, Robert B., and Bernard M. Bass, "The Organizational Training Laboratory," Training Directors Journal, October 1964, pp. 2-15.

For abstract, see item 5.

31. Schutz, William, and Vernon L. Allen, "The Effects of a T-Group Laboratory on Interpersonal Behavior," Journal of Applied Behavioral Science, July/August/September 1966, pp. 265-286.

The authors describe a study to investigate the effects of the T-group process at a Western Training Laboratory in Human

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Relations. Sixty-eight participants completed the FIRO-B (Fundamental Interpersonal Relations Orientation - Behavior) questionnaire before and after the 2-week laboratory and again six months later. They also answered a series of open-ended questions on their perceptions of the effects, both positive and negative, of the T-group on them. A group of college students served as control group.

The findings indicated significant changes in interpersonal behavior following the WLT experience. Correlations among before, after and six months later administrations of the questionnaire revealed much greater change in the WTL participants than in the control group. A content analysis of the subjective material showed that participants reported substantial increase in intellectual understanding and enhancement of personal relations in terms of less tension and more honesty, self-acceptance and assertiveness. A large majority of changes persisted or grew after six months.

- X 32. Schwarz, Fred C., William P. Stilwell, and Burt K. Scanlan, "Effects of Management Development on Manager Behavior and Subordinate Perception," Training and Development Journal, April 1968, pp. 38-50; May 1968, pp. 24-30.

The two-part article describes a research project designed to (1) assess the impact of a series of management development seminars, conducted at a large midwestern insurance company, on the behavior of participants, and (2) identify subordinates' reactions to any changes that did occur. Participants were 57 managers representing the top five levels of the organization and all functional areas. Data were collected via the Leader Behavior Description Questionnaire (LBDQ) and open-ended interviews during which participants described "critical incidents." The managers were divided into two groups; one was interviewed after training and one was interviewed before training.

Analysis of subordinates' reactions to change in executive behavior, as measured by the LBDQ, showed that the subordinates of one group of managers perceived them as less active, less definite and less production-centered after training whereas the subordinates of the other group perceived their superiors in precisely the opposite way, more active, more production-oriented, etc.

Analysis of the critical incidents showed that the trained group was more personnel-oriented than the untrained group and more effective in solving problems. The trained group also showed

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a much greater tendency to learn from day-to-day experience.

33. Underwood, W. J., "Evaluation of Laboratory Method Training," Training Directors Journal, May 1965, pp. 34-40.

The objective of the study was to measure the effects of T-group training in terms of changes in behavior as reported by observers selected by the trainees. The sample consisted of 15 supervisors who participated in 30 hours of in-plant T-group training. The control group consisted of 15 supervisors who were matched with the experimentals on department, organization level, and age. Observers were instructed to report anonymously any changes they perceived in the trainee's characteristic behavioral pattern. The observers coded each change according to whether it resulted in more or less effective supervision. The observation period covered the 15 weeks of the course and extended 15 weeks beyond the end of the course.

The findings were that (1) the trainees produced more observable changes in job behavior than the control group but (2) the changes were judged to be in the direction of decreased effectiveness, in a substantial number of reports.

- X 34. Wilson, John E., Donald P. Mullen, and Robert Morton, "Sensitivity Training for Individual Growth - Team Training for Organization Development?" Training and Development Journal, January 1968, pp. 47-53.

For abstract, see item 7.

Results

"What were the effects of the training program as indicated by objective criteria such as productivity, turnover, absenteeism, etc.?"

35. Blake, R. R., J. S. Mouton, L. B. Barnes, and L. E. Greiner, "Breakthrough in Organization Development," Harvard Business Review, November/December 1964, pp. 133-155.

This article describes the administration and evaluation of an organization development program using Managerial Grid material. The primary objective of the research effort was to determine whether the program had been successful in transferring behavioral science concepts into organizational action. Before-and-after

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measures included indices of net profit, productivity per employee, controllable costs, etc. Anecdotal and test data were also gathered from participants and subordinates after completion of the program.

The data indicated that the program made important contributions to improving productivity and profits as a result of changes in behavior, attitudes, and values. The authors conclude that behavioral science education can assist large-scale organization development provided that the top management group is enthusiastic and involved, the educational strategy effectively builds team problem solving, and boss and colleagues reinforce the manager's efforts to change his behavior.

36. Hillman, Harry A., "Measuring Management Training - A Case Study." Journal of the American Society of Training Directors, March 1962, pp. 27-31.

This study attempted to assess the effectiveness of a training program in terms of turnover, absenteeism, accidents, Workmen Compensation costs, etc. Other evaluation measures were also used, including (1) before-and-after tests on supervisory practices; (2) structured questionnaire on which trainees graded, on a 5-point scale, the conference leader's effectiveness, the interest value of the subjects, and the usefulness and applicability of the material; (3) form soliciting comments and suggestions from the trainees.

With respect to the operational effects of the program, the findings were that turnover was 30% and the accident rate was 50% below the respective prior 5-year averages. Workmen Compensation costs and absenteeism were also reduced. The author cautions that it is not known to what extent improved operations were due to the training as compared to other factors; at the same time, he feels data justify the conclusion that a well-planned industrial program including management training can contribute in a material way to enhancing organizational efficiency.

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- 11/21/70 37. Parker, Treadway C., The Anatomy of Organization Development. New York: American Foundation for Management Research, Inc., 1968, 163 pp.

This report describes an exploratory study of a planned organization development program conducted within a large food products company. The study had several objectives, one of which was to observe and assess the effects of the change effort upon members of the company's management. The formal development program, which was designed to diffuse a set of management concepts throughout the entire organization, consisted of a series of briefings attended by three levels of management in a proscribed sequence: first, by the president, then by the corporate officers, and finally by the middle management group. In all, about 300 managers attended the briefings. The study was longitudinal in nature, extending over a period of approximately $1\frac{1}{2}$ years. A series of semi-structured interviews were conducted with approximately 35 executives before, during, and after their attendance at the briefings.

The major effects of the program in terms of organizational performance were: (1) During the period of the development program, the growth rate for sales was almost double the rate for the prior eight years; (2) interest in external management development activities increased from an average annual enrollment of 36 in prior years to an average enrollment of 135 per year during the development period.

The major effects of the program in terms of organizational climate were: (1) More emphasis was placed on delegating decision-making authority; (2) major changes occurred in attitudes toward planning and in actual planning practices; (3) as decision autonomy and clearer plans emerged, the need for a clearer concept of management control or results measurement became obvious; (4) a more homogeneous communication framework developed among the participating managers at all levels; (5) as a result of preparing job descriptions, there was a marked increase in clarity both about individual jobs and the interrelations among work groups; (6) with clearer job objectives, a new sense of objectivity regarding performance evaluation began to emerge.

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II. Reviews of the Literature

38. Besco, Robert, Joseph Tiffin, and Donald C. King, "Evaluation Techniques for Management Development Programs," Journal of the American Society of Training Directors, October 1959, pp. 13-27.

A comprehensive literature survey of material published between 1948 and 1958 on every aspect of evaluation: theory, methodology, interpretation of research findings, etc. An extensive bibliography is provided.

39. Blumenfeld, Warren S., "Attitude Change as a Criterion in Training," Training and Development Journal, October 1966, pp. 26-32.

A survey of studies (1957-61) which use attitude change as a criterion for evaluating the effectiveness of training. Nineteen studies are reviewed and classified according to the nature of the research design; only eight had a design calling both for pre- and post-tests and use of control group, and the author feels that this is cause for concern.

40. Campbell, John P., and Marvin D. Dunnette, "Effectiveness of T-Group Experiences in Managerial Training and Development," Psychological Bulletin, August 1968, pp. 73-104.

A detailed examination of more than 40 studies which investigated the utility of the T-group as an educational technique. The authors also discuss the problem facing T-group researchers and offer suggestions for new approaches. The article contains 94 references.

41. House, Robert J., "T-Group Education and Leadership Effectiveness: A Review of the Empiric Literature and a Critical Evaluation," Personnel Psychology, Spring 1967, pp. 1-32.

This article reviews studies concerned with the effects of T-groups in terms of (1) changes in participant characteristics, and (2) changes in behavior on the job. Author also discusses a series of questions which should be considered before the T-group technique is selected as a method of change within an organizational framework. Article lists 49 references.

42. Miraglia, Joseph F., "Human Relations Training: A Critical Examination of On-the-Job Effects," Training and Development Journal, September 1966, pp. 18-27.

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A review of the literature focusing on studies (1951-64) which attempted to evaluate human relations training in terms of on-the-job performance. The author concludes that most of them were poorly executed and attributes inadequacies to (1) lack of valid and reliable means of measurement; (2) unwillingness of organizations to experiment in sensitive human relations areas; (3) inherent difficulties of investigating and experimentally controlling dynamic interaction within organizations; and (4) difficulty of evaluating training results in ever-changing organizational settings.

III. Discussions of Evaluation Techniques

43. ~~dc.~~ Denova, Charles C., "Is This Any Way to Evaluate a Training Activity?" Personnel Journal, July 1968, pp. 488-493.

The author suggests tests to evaluate three aspects of a training program: degree of change in employee behavior; impact of training on achievement of organizational goals; and effectiveness of training personnel, methods, and techniques. He lists different types of tests and briefly gives the advantages and disadvantages of each.

44. ~~///~~ Ferguson, Wilburn C., "Quantitative Evaluation of Training Using Student Reaction," Training and Development Journal, November 1968, pp. 36-42.

A description of a method for evaluating training courses at the Motorola Aerospace Center by using trainee ratings, absentee rate, and dropout rate as criteria for determining reaction to the programs. Sample forms and instructions for calculating ratings are included.

45. ~~///~~ Hennessy, David E., "Profit from Training," Training in Business and Industry, February 1969, pp. 34-40.

Guidelines for a method of measuring the effectiveness of a training program in financial terms. Step-by-step procedures for developing and evaluating the training program are provided, including sample cash flow diagrams. The writer, however, admits the difficulty of applying his system to a management development program.

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46. Kirkpatrick, Donald L., "Evaluation of Training." In Craig, Robert L., and Lester R. Bittel (Eds.), Training and Development Handbook. New York: McGraw-Hill, Inc., 1967, pp. 85-119.

The author identifies four major areas of training evaluation. In order of increasing complexity, these are:

- (1) Reaction - how satisfied was the participant with the program?
- (2) Learning - what attitudes, techniques, or skills were understood and absorbed by the participant?
- (3) Behavior - did the training lead to more effective performance on the job?
- (4) Results - what were the effects of the training program as indicated by objective criteria such as productivity, turnover, absenteeism, etc.?

Each area is discussed in some detail; and criteria and procedures for conducting the evaluation are outlined. Sample questionnaires are also included.

47. Kohn, Vera, and Treadway C. Parker, "Some Guidelines for Evaluating Management Development Programs," Training and Development Journal, (in press).

A The authors report on the methodological aspects of two evaluation studies to illustrate the use of a variety of measuring devices and analytical techniques. The description of the methodologies serves as a backdrop against which ideas are offered to assist those interested in evaluation on formulating a research strategy.

48. Reddin, W. J., "The Blake Approach and the Grid - A Critique," Journal of the American Society of Training Directors, December 1963, p. 34.

A list of 17 questions is presented for use in evaluating the Managerial Grid management development program; also, five criteria for comparing the Blake, case study, and T-group approaches to management development.

49. Rose, Homer C., "A Plan for Training Evaluation," Training and Development Journal, May 1968, pp. 38-51.

A The author discusses the purposes of evaluation; what should be evaluated (namely, the training plan as related to well established needs; methods, instructional materials and training aids; performance and achievement of trainees). He

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stresses the importance of having those who are to do the evaluating participate in the planning of it. A number of sample evaluation plans are provided, and thirteen techniques of evaluation are reviewed briefly.

50. Shaffer, Dale E., "Control Through Measurement: Meeting Objectives as a Means to Justify Training," Training Directors Journal, September 1964, pp. 39-50.

A discussion of the importance of exercising control over training programs by (1) getting trainee opinions, and (2) measuring learning through pre- and post-tests. As control devices, the author prefers these methods to later follow-up, e.g., measuring changes in on-the-job behavior.

51. Wnuk, Joseph J., Jr., "Evaluation of Conceptual Training," Training and Development Journal, December 1966, pp. 38-40.

Brief account of a technique for determining the impact of a training program using conceptual material. Three factors are tapped on a pre- and post-training basis: awareness of, understanding of, and commitment to the concepts taught.

IV. Surveys of Corporate Practices

52. Catalanello, Ralph F., and Donald L. Kirkpatrick, "Evaluating Training Programs - The State of the Art," Training and Development Journal, May 1968, pp. 2-9.

The authors surveyed 154 firms to determine the extent to which organizations which offer human relations training programs approach evaluation from each of the four vantage points identified by Kirkpatrick (see item 45). They found that 77% of the responding organizations assessed their programs in terms of trainees' reactions; 50% attempted to measure learning; 54% studied changes in on-the-job behavior; and 45% examined results. The authors conclude that "the evaluation 'state of the art' is still in its infancy."

53. Lippitt, Gordon L., Shirley D. McCune, and Larry D. Church, "Attitudes of Training Directors Toward the Application of Research to Training Programs," Training Directors Journal, March 1964, pp. 13-20.

This article reports the results of a questionnaire survey made among training directors to determine to what extent

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they evaluate their programs. The post-training questionnaire is the most frequently-used instrument for evaluation. Most of the respondents said they were not satisfied with the methods they use but can't do more for lack of time, staff, and money. The most frequent application of research findings is toward improvement of program design.

V. Books

54. Argyris, Chris, Interpersonal Competence and Organizational Behavior. Homewood, Ill.: Richard D. Irwin, Inc., 1962.
55. Bradford, L. P., J. R. Gibb, and K. D. Benne, (Eds.) T-Group Theory and Laboratory Method. New York: John Wiley & Sons, Inc., 1964.
- 12/1 ~~56~~ Campbell, John P., Management Training: The Development of Managerial Effectiveness. Greensboro, N. C.: The Richardson Foundation, 1966.
57. Hesseling, P., Strategy of Evaluation Research. Netherlands: Van Gorcum & Company, N.V., 1966.
- ~~58~~ House, Robert J., Management Development: Design, Evaluation and Implementation. Ann Arbor: Bureau of Industrial Relations, University of Michigan, 1967.
59. McGehee, William, and Paul W. Thayer, Training in Business and Industry. New York: John Wiley & Sons, Inc., 1961.
60. Miner, John B., Studies in Management Education. New York: Springer Publishing Company, 1965.
- ~~61~~ Tracey, William R., Evaluating Training and Development Systems. New York: American Management Association, 1968.

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